

# PATENT COOPERATION TREATY

# PCT

From the INTERNATIONAL SEARCHING AUTHORITY

INVITATION TO PAY ADDITIONAL FEES

(PCT Article 17(3)(a) and Rule 40.1)

To:  
**QUARLES & BRADY LLP**  
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**P.O. Box 2113**  
**MADISON, WI 53701-2113**  
**UNITED STATES OF AMERICA**

Date of mailing  
 (day/month/year) **31/03/2003**

Applicant's or agent's file reference  
**960296.97648**

**PAYMENT DUE** within **45** ~~XXXX~~ days  
 from the above date of mailing

International application No.  
**PCT/US 01/ 46833**

International filing date  
 (day/month/year) **19/10/2001**

Applicant  
**WISCONSIN ALUMNI RESEARCH FOUNDATION**

1. This International Searching Authority

- (i) considers that there are 252 (number of) inventions claimed in the international application covered by the claims indicated ~~below~~ on the extra sheet:

and it considers that the international application does not comply with the requirements of unity of invention (Rules 13.1, 13.2 and 13.3) for the reasons indicated ~~below~~ on the extra sheet:

- (ii) ☒ has carried out a partial international search (see Annex) ☐ will establish the international search report on those parts of the international application which relate to the invention first mentioned in claims Nos.:  
**1-5 (partially)**

- (iii) will establish the international search report on the other parts of the international application only if, and to the extent to which, additional fees are paid


2. The applicant is hereby **invited**, within the time limit indicated above, to pay the amount indicated below:

EUR 945,00 x 251 = EUR 237.195,00  
 Fee per additional invention number of additional inventions total amount of additional fees


Or, \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_

The applicant is informed that, according to Rule 40.2(c), **the payment of any additional fee may be made under protest**, i.e., a reasoned statement to the effect that the international application complies with the requirement of unity of invention or that the amount of the required additional fee is excessive.

3. ☐ Claim(s) Nos. \_\_\_\_\_ have been found to be unsearchable under Article 17(2)(b) because of defects under Article 17(2)(a) and therefore have not been included with any invention.

Name and mailing address of the International Searching Authority  
 **European Patent Office, P.B. 5818 Patentlaan 2**  
**NL-2280 HV Rijswijk**  
**Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,**  
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Authorized officer

**Barbara Klaver** 

10/085, 959 #6

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Invention 1: Claims: 1-5 partially

Subject 1: Nucleic acid with SEQ ID NO 1 and its use

Inventions 2-252: Claims 1-11 partially (claims  
6-11 only applicable for subjects 85, 251 and 252)

Subjects 2-252: Nucleic acid with SEQ ID NO's 2-251, 254  
respectively, and their use

Infection and Immunity 66(1998)4411 including the GenBank Accession no AF081283-AF081286 referred to in this publication discloses many nucleotide sequences from E. coli strain CFT073 not present in E. coli K12 and associated with the CFT073 virulence.

In the light of this prior art the problem presented in the present application is to provide further such sequences.

The solutions to this problem are the provision of polynucleotide sequences SEQ ID NO 1-251 and 254.

The ISA considers that due to the fact that E. coli CFT073 virulence specific nucleotide sequences already exist and due to the fact that the claimed sequences are essentially different there is no technical relationship between the different claimed sequences. As no other technical feature can be distinguished which, in the light of the prior art, can be regarded as special technical feature, the ISA is of the opinion that there is no single inventive concept underlying the plurality of the claimed inventions in the present application. Consequently there is lack of unity within the sense of Rule 13.1 PCT.

**Annex to Form PCT/ISA/206**  
**COMMUNICATION RELATING TO THE RESULTS**  
**OF THE PARTIAL INTERNATIONAL SEARCH**

International Application No

PCT/US 01/46833

1. The present communication is an Annex to the invitation to pay additional fees (Form PCT/ISA/206). It shows the results of the international search established on the parts of the international application which relate to the invention first mentioned in claims Nos.:

2. This <sup>1-5</sup> communication is not the international search report which will be established according to Article 18 and Rule 43.

3. If the applicant does not pay any additional search fees, the information appearing in this communication will be considered as the result of the international search and will be included as such in the international search report.

4. If the applicant pays additional fees, the international search report will contain both the information appearing in this communication and the results of the international search on other parts of the international application for which such fees will have been paid.

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE EMBL 'Online! 18 May 1995 (1995-05-18) WANG R AND KUSHNER S: "Identification and physical analysis of new genes in the argG region (69 min) of E. coli chromosome" Database accession no. U01376 XP002234621 abstract	1
Y	--- GUYER DEBRA M ET AL: "Genomic analysis of a pathogenicity island in uropathogenic Escherichia coli CFT073: Distribution of homologous sequences among isolates from patients with pyelonephritis, cystitis, and catheter-associated bacteriuria and from fecal samples." INFECTION AND IMMUNITY, vol. 66, no. 9, 1998, pages 4411-4417, XP002234620 ISSN: 0019-9567 cited in the application the whole document	1-5
Y	--- WO 98 22575 A (HUMAN GENOME SCIENCES INC ;CHOI GIL H (US); UNIV WISCONSIN (US); W) 28 May 1998 (1998-05-28) the whole document --- -/--	1-5

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Annex to Form PCT/ISA/206  
COMMUNICATION RELATING TO THE RESULTS  
OF THE PARTIAL INTERNATIONAL SEARCH

International Application No  
PCT/US 01/46833

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	BLATTNER F R ET AL: "THE COMPLETE GENOME SEQUENCE OF ESCHERICHIA COLI K-12" SCIENCE, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,, US, vol. 277, 5 September 1997 (1997-09-05), pages 1453-1462, XP002069950 ISSN: 0036-8075 cited in the application the whole document -----	1-5

# Patent Family Annex

Information on patent family members

International Application No

PCT/US 01/46833

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9822575	A	28-05-1998	
		AU 7301698 A	10-06-1998
		EP 0942964 A2	22-09-1999
		JP 2002513277 T	08-05-2002
		WO 9822575 A2	28-05-1998
		US 2002072595 A1	13-06-2002
		US 6316609 B1	13-11-2001
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